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The Draft
Environmental
Management
Plan
for the
San Francisco
Bay Region

A STATEMENT OF KEY ISSUES FROM AN ECONOMIC PERSPECTIVE

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This document is a Bay Area Council staff analysis of the draft Environmental Management Plan recommendations and issues of concern to the Bay Area business community. It is not to be construed as a Bay Area Council position statement.

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The Draft Environmental Management Program for the San Francisco Bay Area: A STATEMENT OF KEY ISSUES FROM AN ECONOMIC PERSPECTIVE

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produced by the Bay Area Council staff
January, 1978

*Environ. policy -- Econ. aspects --
CA -- SF metro area*

*Air quality management -- Econ.
aspects -- CA -- SF metro area*

*Water qual. management -- Econ.
aspects -- CA -- SF metro area*

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Introduction

This Bay Area Council staff report is intended to inform those interested in economic issues about the Bay Area Environmental Management Program being conducted by the Association of Bay Area Governments (ABAG), and is thus primarily directed to Bay Area business firms, business-sponsored groups and economic development organizations.

While the Bay Area Council's interest in the program is not confined to its potential economic impacts, that is a central area of concern. In describing the draft Environmental Management Plan (EMP) that has recently been released for public review, this paper focuses on draft recommendations and issues of direct concern to the economic community.

All discussions of the plan, unless otherwise stated, refer to the integrated draft version released in January, 1978. This draft plan compiles actions recommended by ABAG staff* to meet the goals of the program. *The draft plan has not been endorsed or acted upon by the Environmental Management Task Force or other decision-makers.*

Every effort has been made to accurately reflect the draft plan contents and other information disseminated through the program. However, the Bay Area Council staff is solely responsible for the contents of this report.

* Some portions of the plan were developed by or with the participation of other agencies.

What is the Environmental Management Program?

The Environmental Management Program (EMP) is a two-year effort by the Association of Bay Area Governments (ABAG) to produce an integrated water quality, air quality and solid waste plan for the nine-county Bay Area. Funded by a \$4.3 million Environmental Protection Agency (EPA) grant, the EMP was initiated in response to water quality planning requirements of section 208 of the Federal Water Pollution Control Act Amendments of 1972. (The EMP is sometimes referred to as the Bay Area's "208 program".)

In developing the mandated 208 program, local officials and EPA saw the opportunity to fold Air Quality Maintenance Planning into the 208 process. Thus, the Bay Area's EMP also responds to planning requirements of the Federal Clean Air Act. The solid waste plan element addresses certain 208 requirements as well as those of the California Resource Conservation and Recovery Act of 1976.

The EMP has built on existing programs and policies on all governmental levels. The goal of the program is to develop a Bay Area Environmental Management Plan that:

- will lead to the greatest possible improvement in water and air quality and problems caused by solid waste, and will lead to compliance with federal and state standards and objectives at the earliest possible date.
- *will not have social, economic, or environmental effects so unacceptable as to prevent implementation.* This goal sets the EMP apart from previous planning efforts.

There is an obvious tension between these two objectives. The challenge of the EMP is to produce a plan that represents a consensus of local and regional interests, and that state and federal agencies will consider an acceptable regional effort toward meeting mandated goals.

In sum, the importance of the Environmental Management Program is that:

- local and regional interests have the responsibility of recommending ways to achieve state and federal environmental goals;
- consideration of the economic and social impacts of environmental policies is to be part of the decision-making process;
- policies being considered have great potential impact, both positive and negative, on the quality of life in the Bay Area.

What is the Bay Area Council's Involvement?

The Bay Area Council is a business-sponsored nonprofit organization involved in public policy issues concerning the environmental quality and economic vitality of the nine-county Bay Area. The Council was selected to represent the business community on the Environmental Management Task Force (EMTF), the 46-member ad hoc body that has advised ABAG staff in the development of proposed draft plans, and will be voting on plan recommendations. The Council's delegate to EMTF is Paul O. Reimer, President of Reimer and Associates. Angelo J. Siracusa, Council Executive Director, serves as his alternate.

Besides participating in the program on behalf of the business community, the Council has also:

- made ongoing efforts to inform business and other interested citizens about the program and to encourage involvement in the process.
- recommended private-sector representatives to serve on the various technical advisory committees that have assisted in plan development.
- commissioned an independent study of ways to strengthen the analytical basis for the draft Air Quality Maintenance Plan. Currently in progress, this study is being conducted by Stanford Research Institute.

The Bay Area Council is in the process of developing a formal policy position on the full draft Environmental Management Plan, with special emphasis on the Air Quality Maintenance Plan (AQMP). This official policy will discuss plan issues of concern to the Council and recommend specific actions on the proposed policies contained in the draft plans.

How Can Concerned Citizens Participate?

With release of the draft Environmental Management Program the program has moved into the decision-making stage. There are a variety of opportunities for public input to the process between now and April 6, both through ABAG mechanisms and through the Bay Area Council, which is working to coordinate and serve as a conduit for business involvement in the program. Consult the schedule on page 5 for specific dates and locations of hearings and meetings described below. For more information, contact ABAG's Public Affairs Department (415/841-9730), or Tom Merle or Brigitte Stelling at the Bay Area Council (415/981-6405).

Review draft plan recommendations, as described in this paper, in the AQMP summary table of recommendations attached as an appendix to this paper, and in other plan documents available from ABAG. Establish, if possible, whether and how your business or industry would be affected by draft plan recommendations. Scrutinize estimated costs and impacts of draft recommendations. Technical background material on plan recommendations can be made available; contact ABAG or the Bay Area Council if you need more information on plan recommendations to determine what their impact might be.

Channel input through the Bay Area Council. The Council is working with business and industry representatives to develop and articulate a regional business community viewpoint on the draft plan recommendations. Input from Bay Area business firms and organizations is encouraged. Contact Tom Merle or Brigitte Stelling at the Council office (415/981-6405).

Participate in public workshops and hearings being held by the Environmental Management Task Force in January and February.

Contact members of the Environmental Management Task Force (EMTF). On February 16 and 22, EMTF will discuss and vote on draft plan recommendations. EMTF members are charged with representing various regional interests (including business, homebuilding, and labor), as well as citizen interests, local governments, regional agencies and special districts. See Appendix 2 on p. 35 for an EMTF roster.

Contact ABAG members. ABAG's Executive Board, Regional Planning Committee and General Assembly will all be considering and voting on the draft plan in March and early April. The plan adopted by ABAG will be that forwarded to state agencies and finally EPA for approval. See Appendix 2, p. 35, for the names of ABAG members representing your area on these three ABAG bodies.

DRAFT ENVIRONMENTAL MANAGEMENT PLAN
REVIEW AND APPROVAL SCHEDULE

Date/Place	Activity/Event	Who Participates	Action
* Wednesday, Jan. 25, 1978, 7:30-10 p.m. Board of Supervisors Chambers, Napa	EMTF/Executive Board workshop	Public and agencies	
* Wednesday, Feb. 1, 1978, 2-5 and 7:30-10 p.m. Board of Supervisors Chambers, San Jose	Executive Board acting for General Assembly/EMTF public hearing on plan and DEIR	Public and agencies	Comments
* Tuesday, Feb. 7, 1978, 5 p.m., ABAG offices, Hotel Claremont, Berkeley	Deadline for written submission of proposed amendments for consideration by EMTF	Public and agencies	Submit proposed amendments
* Wednesday, Feb. 8, 1978, 9 a.m.-7 p.m., Hotel Claremont, Berkeley	General Assembly (including public hearing on plan and DEIR)	General Assembly delegates and alternates, public, agencies	The General Assembly will have an information meeting on the plan. A public hearing on the plan and DEIR will be conducted from 2:30-4:30 and 4:45 to 7 p.m.
Thursday, Feb. 16, 1978, 9:30 a.m.-3 p.m., Hotel Claremont, Berkeley	EMTF meeting	EMTF members	Discussion of proposed amendments to plan
* Thursday, Feb. 16, 1978, 8-10:30 p.m., Holiday Inn, Union Square, San Francisco	Executive Board acting for General Assembly/EMTF public hearing on plan and DEIR	Public and agencies	Comments
Tuesday, Feb. 21, 1978, 5 p.m.	Formal plan/DEIR comment period ends	State-Clearinghouse and ABAG	Receipt of comments
* Wednesday, Feb. 22, 1978, 9:30 a.m.-5 p.m., Hotel Claremont, Berkeley	EMTF meeting	EMTF members	Final debate and action on plan recommendations for forwarding to RPC, Executive Board and General Assembly

(continued)

EMP APPROVAL SCHEDULE (Continued)

Date/Place	Activity/Event	Who Participates	Action
Wednesday, March 1, 1978, 2-5 p.m., Hotel Claremont, Berkeley	Regional Planning Committee meeting	RPC meeting	Review Environ- mental Management Plan for consis- tency with Regiona Plan and submit findings to Execu- tive Board
Friday, March 3, 1978, 5 p.m., ABAG offices, Hotel Clare- mont, Berkeley	ABAG Executive Director	General Assembly delegates and alter- nates, cities and counties	Last Day to receiv proposed amend- ments to EMP
March 3-10	Staff assessment of proposed amendments		
March 10-30	If required, notice and public review of substantial amendments, if any		
Thursday, March 16, 1978, 7:30 p.m., Hotel Claremont, Berkeley	Executive Board meeting	Executive Board members	Debate and recom- mendations to Gen- eral Assembly on plan and proposed amendments
April 1-5, 1978	Staff preparation of responses to substantial amendments and comments, if any	Staff	
Thursday, April 6, 1978, 9:30 a.m.- 10 p.m., McCabe Hall, San Jose	General Assembly	General Assembly members	Final debate and action on: 1) Amendments to the plan; 2) FEIR; and 3) Plan

* public participation

Source: Association of Bay Area Governments

The Draft Environmental Management Plan

The draft EMP, released in January, 1978, integrates for the first time four separately developed management elements, described in the following pages: air quality; water quality; water supply, conservation and reuse; and solid waste. Of these, the Air Quality Maintenance Plan (AQMP) has the greatest potential impact on the region's business community and economy, and is of the greatest concern to the Bay Area Council. However, the Council is addressing the other three elements, each of which has aspects of concern to specific affected industry sectors.

While labelled a "plan," the draft EMP actually represents a compilation by ABAG staff, with some participation from EMTF and other participants in the planning process, of alternative control measures to be considered for adoption by EMTF and the ABAG Executive Board, Regional Planning Committee and General Assembly.

The Draft Air Quality Maintenance Plan (AQMP)

BACKGROUND

The 1970 Federal Clean Air Act required EPA to set national ambient air quality standards for six different pollutants. Primary standards were set, based on available medical evidence, to protect human health with an adequate margin of safety for those most sensitive to pollution, including children, the elderly and those suffering from respiratory ailments. The Act required that standards be met nationwide by 1975, or 1977 at the latest.

Although pollutant levels in the Bay Area decreased significantly between 1965 and 1975, the Bay Area (along with many other regions) clearly could not meet the 1977 deadline. Thus, the Bay Area's air quality maintenance planning process, required by the 1970 Clean Air Act, had to be aimed at developing plans for attaining standards.

Most troublesome in the Bay Area is the standard for oxidant, the chief contributing factor to smog, which is not to exceed concentrations of .08 parts per million for more than one hour per year. Some believe that the oxidant standard cannot be met in the Bay Area without unacceptably disruptive measures.

Since the AQMP was folded into the 208 water quality planning process, with EPA's concurrence, the air quality planning process was to incorporate the same consideration of economic and social objectives as other Environmental Management Plan elements. The goal established for the Bay Area's AQMP was to develop plans for attainment of federal and state air quality standards "as expeditiously as practicable," a departure from the Clean Air Act approach of working backward from rigid deadlines. EPA and the State Air Resources Board (ARB) accepted this goal, anticipating that 1977 Clean Air Act amendments would change federal planning requirements in any case. When those amendments were enacted in mid-1977, by which time the AQMP technical and analytical backup work was close to completion, they set new deadlines that superseded the AQMP's original goal.

REQUIREMENTS OF THE 1977 CLEAN AIR ACT AMENDMENTS

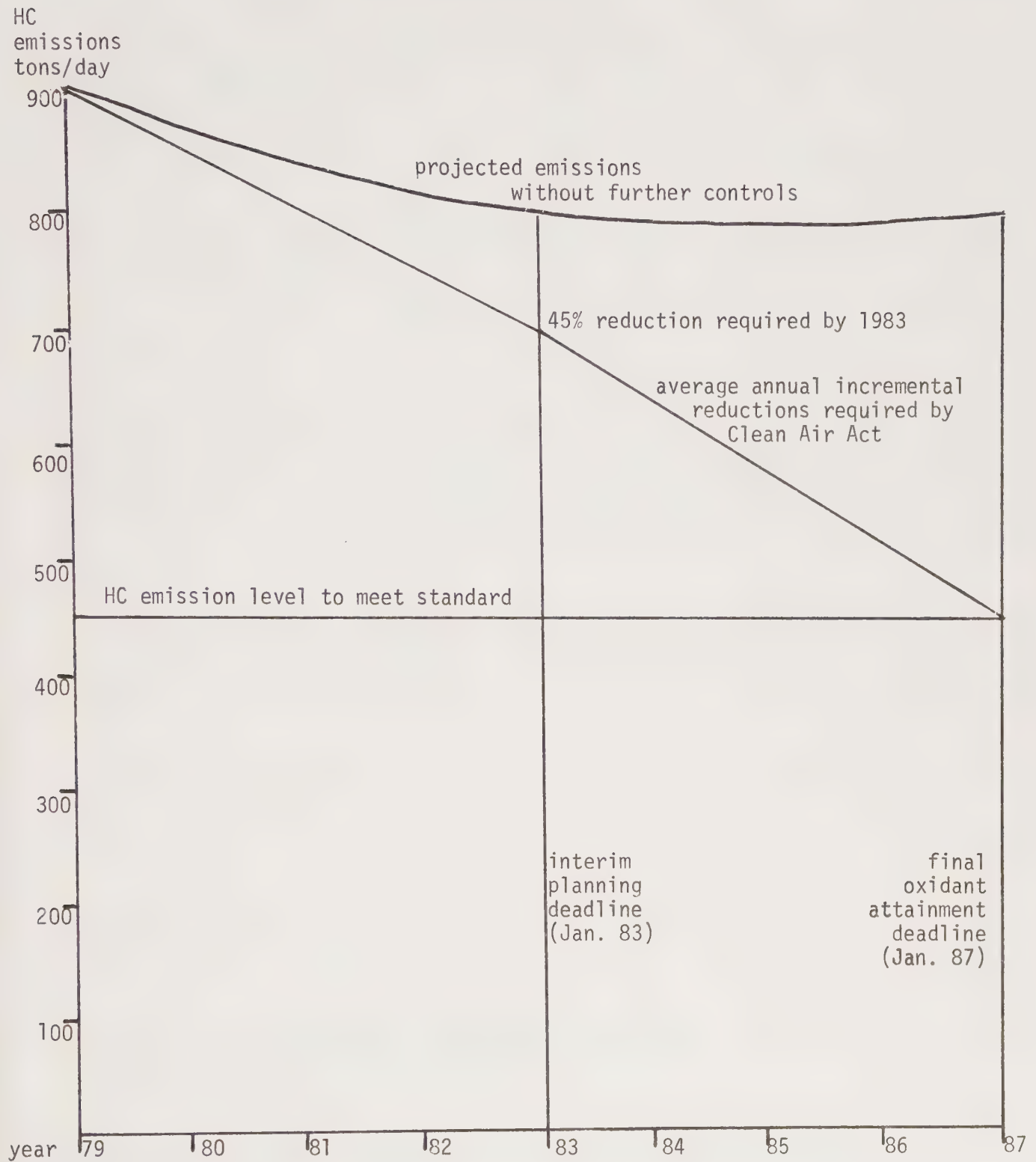
The 1977 amendments establish a 1982 deadline for attaining three standards--nitrous oxide (NO_x), sulfur dioxide (SO₂), and particulates--and a January, 1979 deadline for plans showing how those standards will be attained. Regions that cannot meet standards for CO and oxidant, the two most troublesome pollutants, by 1982--and this includes the Bay Area--may seek a deadline extension to 1987.

There are, however, interim planning requirements that the Bay Area must fulfill if it must elect an extension to the 1987 deadline. In that case, the Act requires that in its January, 1979 plan the region show what measures will be adopted to achieve "reasonable further progress" toward the oxidant standard during the four-year period between January, 1979, and December, 1982, and describe what further measures would be necessary to attain standards by 1987.

An EPA interpretive ruling defines "reasonable further progress" in the first four years as incremental reductions in emission of hydrocarbons (the precursor to oxidant) such that "by December 31, 1982, the plan as a minimum has obtained approximately 45% of the total [hydrocarbon] emission reductions necessary to attain the

Figure 1

ESTIMATE OF BAY AREA HYDROCARBON EMISSION
REDUCTIONS NECESSARY TO MEET CLEAN AIR ACT ATTAINMENT REQUIREMENTS



standard [by 1987]..." The Act stipulates that certain "reasonably available" controls must be adopted by regions that cannot meet standards by 1982. These include: use of Reasonably Available Control Technology for industry (the best pollution control equipment economically feasible); a statewide vehicle inspection and maintenance program; and development of a process for industrial siting. (ABAG is conducting an industrial siting project separately from the AQMP effort; the resulting recommendations will be integrated with the proposed AQMP.)

To meet the 1987 oxidant attainment deadline, according to AQMP staff, the region must reduce emissions of hydrocarbons by 50% between 1979 and 1987--from approximately 900 to 450 tons per day (see fig. 1, p. 9). In terms of the interim 45% reduction prescribed in the EPA interpretive ruling, this means the Bay Area's 1979 AQMP must show how a hydrocarbon emission reduction of approximately 202 tons per day will be achieved by the end of 1982--an average annual reduction of approximately 50 tons per day.

The AQMP must undergo a process of state and federal review. If the region's plan is found unacceptable and disagreements are not reconciled, sanctions could ultimately be invoked by the federal or state governments. These could include withholding of funds, or direct implementation of certain measures.

DRAFT PLAN RECOMMENDATIONS AND KEY ISSUES

Analysis to develop the plan was done with the aid of a sophisticated computer model showing dispersion and reactivity of hydrocarbons under worst-case meteorological conditions. With enactment of new Clean Air Act requirements in mid-1977, AQMP staff began utilizing the data that had been generated to develop a list of measures that, it was estimated, would be necessary for the region to attain the oxidant standard by 1987.

These measures build on existing programs for controlling direct sources, both stationary (industrial and commercial) and mobile (light-duty and heavy-duty vehicles). The list of measures proposed by AQMP staff also incorporates land use and transportation controls which are aimed at achieving more compact growth and reduced automobile travel in the long term, in order to maintain oxidant standards between 1987 and 2000.

AQMP staff projected that without further air quality controls, the region would continue to achieve some improvements in air quality through the 1980's (see fig. 1, p. 9), but that thereafter air quality would worsen as technologically achieved gains were reversed and overtaken by growth in regional population and travel.

Thus, AQMP staff developed a comprehensive strategy, which it maintained was necessary to: (1) show attainment and maintenance of standards, (2) control growth-related increases in pollution, and (3) show "good faith" efforts toward meeting standards.

The draft plan calls for measures to be implemented by all levels of government and the private sector. Some of the recommended actions would require federal or state legislation, others regional action, others adoption of ordinances by local governments.

The following summarizes the control measures (stationary source, mobile source and land use and transportation) recommended by AQMP staff, focusing on those of

special interest to the business community. Also described are some issues and concerns that have been raised about those proposals. All dollar figures cited refer to AQMP staff estimates of private costs only, in 1977 dollars.

Appendix 1 on p. 23, excerpted from the December, 1977, ABAG document, "Draft Environmental Management Plan for the San Francisco Bay Region: Plan Recommendations," gives more detailed information on the implementation and ABAG staff impact assessment of the proposed air quality controls.

STATIONARY SOURCE CONTROLS

Description

Stationary source hydrocarbon emissions presently represent about 55% of the regional total, and this proportion is projected to increase as new automobiles meet tougher emission standards. To gain maximum possible hydrocarbon reductions through industrial controls, the draft AQMP is proposing two general categories of stationary source regulation:

- required use of Best Available Control Technology (BACT) on both new and existing hydrocarbon sources. For purposes of the AQMP, BACT has been defined as state-of-the-art technology that is "known but not necessarily proven" by California industrial operations. All firms using solvents or surface coatings are affected by this measure. AQMP staff attributes a substantial hydrocarbon reduction--227 tons per day by 1985--to implementation of BACT for all large and moderate-sized industrial facilities and processes (but acknowledges a considerable margin of possible error). AQMP staff acknowledges that its cost estimates are also subject to a high margin of error; taking this into account, AQMP staff estimates are that BACT would cost the region's industrial sector between \$192 and \$768 million by 1985. Table 1, p. 12, breaks down the estimate of BACT costs and effectiveness by industrial category.

- continued review of new and modified industrial facilities (New Source Review). This program prohibits any industrial or commercial construction or expansion that would result in any pollutant emission of more than 25 lbs. per hour, unless the applicant can offset the increased emissions, on a better than one-to-one basis, by reducing existing emissions prior to start-up of the new facility. AQMP staff intends that this program (and the indirect source land use program) be applied with varying stringency, depending on improvements achieved from other measures.

Key Issues

The proposed imposition of BACT coupled with New Source Review raises several major issues:

- AQMP staff did not distinguish between the costs and benefits of BACT for new or modified industry vs. the costs and benefits of retrofitting BACT on existing industry. Nor does the measure take into account the differing cost-effectiveness of applying BACT to industrial categories that are already highly controlled vs. those that have been only moderately controlled.

- Unlike the draft AQMP, the Clean Air Act acknowledges that controls achievable for one source may not be realistically achievable for another source in the same category, due to variations in industrial processes, age of physical facilities,

Table 1

BREAKDOWN OF BEST AVAILABLE CONTROL TECHNOLOGY (BACT)
COSTS AND HYDROCARBON EMISSION REDUCTIONS BY PROCESS CATEGORY

Bay Area Air Pollution Con- trol District Process Category	Emission Reduction (Tons/Day)		Control Costs ^a				BACT-- specific requirements
	1985	2000	1985		2000		
			CAP (\$ million)	O/M	CAP (\$ million)	O/M	
2-Petroleum Refining- Other Processes ^C	16.9	22.3	\$10.	\$1.1	\$17.5	\$1.1	BM & PC ^b
3-Petroleum Refining- Upsets, Breakdowns	2.6	3.5	1.	.1	1.2	.12	BM & PC
9-Other Chemical	2.6	3.1	1.5	.075	1.8	.09	incinerator, low-no solvent coatings, fume scrubbers
19-Food/Agric. Proces- sing	3.7	4.3	1.5	.075	1.8	.09	incinerator
23-Storage & Blending	17.5	27.9					
24-Marine Loading	5.4	8.2					
25-Bulk Plants	.8	13.6	150.	7.5	250.	12.5	dual & parallel vapor recovery (100% operation
29-Storage Tanks- Solvent	5.7	9.7					
30-Storage Tanks- Other Organic Compounds	3.4	5.8					
31-Industrial Coating- Solvent	38.	52.					
32-Industrial Coating- Water	.3	.5	58.	3.	70.	3.5	incinerator, low-no solvent coatings, fume scrubbers
33-Com'l. & Dom. Coating- Solvent	19.	23.					
34-Com'l. & Dom. Coating- Water	2.7	4.5					

Notes:

- a 2000 costs include those of 1985; 1975 dollar base
- b BM & PC = better maintenance and process changes
- c Costs for this source category are considered underestimates, due to difficulties in isolating the cost of BACT from other process and equipment changes which refineries may opt to implement simultaneously.

Table 1 (Continued)

Bay Area Air Pollution Con- trol District Process Category	Emission Reduction (Tons/Day)		Control Costs				BACT-- specific requirements
	1985	2000	1985 CAP (\$ million)	O/M	2000 CAP (\$ million)	O/M	
35-Degreasers	35.	42.	\$6.	\$.6	\$8	\$.8	absorption
36-Dry Cleaners-PERC	13.	30.	2	.2	5	.5	closed system with solvent recovery
38-Rubber Fabrication	4.7	5.	1.5	.2	1.8	.2	solvent recovery
39-Plastic Fabrication	23.	28.	6	.6	7	.7	solvent recovery
40-Printing	9.	21.	2	.2	5	.5	absorption
41-Other Organics Evaporation	20.	39.	5	.5	9	.9	absorption
TOTAL	226.8	339.1	\$243	\$14	\$376	\$21	
1977 dollar base			\$299	17	462	26	

Source: Association of Bay Area Governments, Draft Environmental Management Plan for the San Francisco Bay Region, Chapter VI, "Air Quality Element," Berkeley, December, 1977.

lack of space to retrofit controls, etc. The Clean Air Act amendments require that industries in nonattainment areas begin or continue applying Reasonably Available Control Technology (RACT), not Best Available Control Technology (BACT). As the name implies, RACT is a more flexible requirement than BACT, and takes into consideration the economic feasibility of retrofitting control technology. The draft AQMP, on the other hand, incorporates BACT, a rule that would not allow consideration of costs or economic impacts.

- AQMP staff has gone beyond the Clean Air Act requirement for RACT to propose BACT, a much more stringent and disruptive rule, based on estimates and conclusions that are subject to a high degree of uncertainty. AQMP staff has acknowledged that every aspect of the technical analysis is subject to a considerable margin of error, and there is an estimated 25% margin of error associated with use of the computer model. Thus, the estimates of anticipated emissions, control costs and effectiveness are grossly approximated.

- The simultaneous implementation of BACT and New Source Review, as recommended in the draft AQMP, is inherently contradictory as long as emission offsets are required to construct new sources or expand existing facilities. If BACT is applied to all moderate and large-sized facilities, no potential emission reductions will remain--short of closing down plants--sufficient to trade for necessary growth.

- As proposed, the BACT rule, which would require control technology known but "not necessarily proven" in California, is intended to force the development and refinement of innovative technology. However, Bay Area industry must assume the burden of determining how this technology can be practically applied and financed.

MOBILE SOURCE CONTROLS

Description

This category involves controls on light and heavy-duty vehicles, including a vehicle inspection/maintenance program (\$16.8 million/year) exhaust controls on existing heavy-duty vehicles (\$1.5 million/year), and light and heavy-duty vehicle exhaust controls to achieve hydrocarbon reductions 50% below already prescribed levels (\$24.9 million/year).

Key Issues

The heavy-duty truck controls are generally acknowledged to be workable and effective. Some question has been raised about the feasibility and potential adverse energy impacts of achieving exhaust emission standards 50% below what has already been mandated by the State Air Resources Board. The inspection/maintenance program, while generally unpopular and difficult to administer, must be enforced in the Bay Area to meet the provisions of the new Clean Air Act Amendments.

LAND USE AND TRANSPORTATION CONTROLS

Description

Controls in both categories are intended to reduce VMT (vehicle miles travelled) by promoting more compact growth and closer proximity of jobs and housing, and

encouraging transit use and carpooling. AQMP staff projects that they would be effective only in the long term, in maintenance of standards after 1987.

It goes without saying that growth management is of special concern to business. Siting of industrial, business and commercial facilities will be affected by the land use controls. Other measures of potential concern to business include:

- establishment of an indirect source review program, to regulate facilities such as shopping centers and highways on the basis of their traffic-generating potential.

- establishment of an auto-free zone in the San Francisco Central Business District.

- a regional parking strategy that includes a parking tax levied on spaces in commercial lots, and requirements for preferential carpool parking in employer-provided lots, as well as public and commercial lots.

Key Issues

AQMP staff argues that a comprehensive strategy incorporating land use and transportation controls is necessary to maintain standards and demonstrate good faith efforts. However, this approach does not consider the very low cost-effectiveness of these controls. Transportation controls as a category cost an estimated \$10,000 for each ton per day of hydrocarbon reduction, compared to \$250 to \$1,000 for each ton per day reduction achieved through stationary source controls, and both land use and transportation controls together are estimated to result in only a 25 ton/day hydrocarbon reduction by the year 2000. An AQMP background document* points out that "the proportion of regional hydrocarbon emissions attributable to commute travel is approximately 5%. It is clear that even massive reductions in automobile travel would have only a minor impact on pollutant emissions."

The uncertainties of the computer model inputs, results and the conclusions drawn therefrom have been acknowledged by AQMP staff. But thus far consideration has not been given to the possibility of deferring adoption of some of the more costly or less effective measures--while still fulfilling interim Clean Air Act planning requirements--until more analysis can be done. Growth-controlling measures, which are effective primarily in the long term, may be found unnecessary as AQMP staff's projections are checked against actual conditions over the next few years. These controls may be justified by other benefits, e.g., energy, efficiency of government services, etc., but the AQMP process is directed toward air quality goals, and does not incorporate analysis to support such possible justifications for land use and transportation controls.

The recommended land use controls have been addressed in an independent study conducted by Gruen Gruen & Associates, San Francisco. The study questions the analytical and behavioral assumptions upon which the estimated effectiveness of land use controls is based. The land use controls are aimed at achieving a better balance of jobs and housing within the region, in order to reduce VMT. The Gruen report points out that the close proximity of jobs and housing in no way ensures that those jobs and housing opportunities will be matched, and that "a host of economic factors and residential preferences will continue to encourage substantial cross-commuting...."

* AQMP/Tech Memo 23, November, 1977, p. 4

The study also describes anticipated impacts of the controls including substantial increases in housing costs, dislocation of low and moderate income households, and rising land prices.

Draft Water Quality Management Plan

BACKGROUND

The 1972 Federal Water Pollution Control Act amendments require that states adopt plans for achieving the goal of zero pollutant discharge into the nation's waterways by 1985, to be met through progressively stricter standards for point sources and continuing controls on other sources.

When the current federal program of constructing municipal and industrial effluent treatment facilities is completed, we will have succeeded in controlling the obvious sources of pollution. Substantial water quality improvements have already been achieved; recent bacterial surveys of San Francisco Bay found it to be safe for swimming during dry weather periods. The goal of the 208 program is to determine how--and whether--additional actions should be taken in each region to address water quality problems.

Certain potential and existing Bay Area water quality problems remain, some of them more readily identifiable than others. Independent consultants to ABAG found that existing data about the Bay is inadequate to document cause and effect links between relatively subtle pollutants and such problems as bacterial contamination of some shellfish beds and the virtual disappearance of the dungeness crab.

DRAFT PLAN RECOMMENDATIONS

Because of the uncertainty about causes of water quality problems, the draft plan proposes a relatively modest effort to address known problems and study poorly understood problems. Specifically, the plan proposes:

- reaffirming the existing federal construction program and effluent treatment requirements; no new industrial treatment regulations are proposed.
- establishing a San Francisco Bay Delta Research Program to coordinate current studies and initiate studies of inadequately understood problem areas. Among other things, this program would investigate whether industrial treatment requirements should be made more or less stringent.
- a program to reestablish recreational and commercial shellfish harvesting in the Bay, which ABAG estimates could be a \$25 million per year industry.
- programs in each county to reduce pollution of surface runoff through such measures as streetsweeping, oil recycling, erosion control, etc.

KEY ISSUES

San Francisco Bay Delta Research Program. Some regulated industries counter that such a program would unnecessarily duplicate efforts of existing entities. ABAG staff emphasizes that the program is intended to coordinate current efforts and determine the scope of additional research needed. Staff has also stated that the research program would have the potential for recommending either reduced or increased industrial effluent treatment requirements.

Oil and Chemical Spill Prevention and Cleanup. Earlier versions of this plan element proposed improving and coordinating the spill prevention and cleanup acti-

vities currently shared by many agencies. Many of the private industries involved in or affected by these activities countered that the current arrangements are adequate; ABAG staff maintains that the effectiveness of existing practices cannot be judged, due to the many agencies involved. The latest version of the draft plan offers a compromise: the existing practices will be monitored by a designated agency, before any conclusions are reached.

Sewage Treatment Plant Capacity. In the process of integrating the draft plan elements to ensure their consistency, the 20-year list of municipal sewage treatment projects approved by the region for federal funding was modified to reflect the compact growth patterns recommended in the draft air quality element. The modifications mean that some expansions of wastewater plant treatment capacity proposed by local governments or sanitary districts could be delayed (in two cases, advanced). This would affect the timing of planned industrial or housing development in portions of the region. The projects affected would depend somewhat on how fast population growth occurs, but areas that may be affected include: Union Sanitary District, San Leandro, Livermore, Valley Community Services District, Pinole, Rodeo, East Contra Costa County, Foster City, Burlingame, Pacifica, Sonoma Valley County Sanitation District, Petaluma. Plant expansion might occur sooner than had been planned in North San Mateo County and Petaluma.

Draft Water Supply Management Plan

BACKGROUND

The Bay Area is a water-short region that must import a substantial portion of its water supply. An increased need for water is anticipated, due to growth and other factors, but the more easily tapped sources have already been developed. Development of new supplies is feasible, but transportation of water from distant sources is environmentally damaging. Water supply projects are costly, but their cost is recoverable in relatively modest user charges, so environmental impact becomes the key issue.

The current drought has made water supply more problematic than before, since it has changed our perceptions of how much water is available as well as how much we need. Conservation and reclamation and reuse of water must also be taken into account as possible ways of reducing demand for new water supplies.

DRAFT RECOMMENDATIONS

The draft plan does not answer the questions it raises about water supply and demand, but rather proposes a mechanism to deal with these issues: creation of a Water Management Coordinating Council, representative of the region's 83 separate water and wastewater agencies. The plan recommends that this council decide which of five Bay Area water supply projects currently on the books should be built, after considering such issues as the feasibility of increased water-sharing among water agencies and how planning should be affected by the experience of the current drought.

Also proposed are:

- a "moderate" regionwide conservation program, involving mandatory agricultural conservation measures, voluntary residential measures, mandatory water-savings devices in new homes, and industrial programs cooperatively developed with water agencies on a case-by-case basis.
- accelerated progress on the federal wastewater reclamation facility construction program.

KEY ISSUES

Some aspects of the water supply element are quite controversial, and are of concern to the Bay Area's citizenry as a whole. However, few of the recommendations can be singled out as having special import for the business community. The cost of building water savings devices into new homes is fairly modest (\$30 per dwelling unit, ABAG staff estimates). Industries and water agencies are already successfully working together to develop conservation measures. Industries requiring large volumes of processing water may object to the plan's proposal to change water rate structures to "encourage conservation," and penalize heavy users. This could induce investment in water conservation devices, and raise prices of goods produced by these industries.

Draft Solid Waste Management Plan

BACKGROUND

Most Bay Area solid wastes are landfilled, which has been the cheapest and easiest disposal method available. The draft plan states that the region is running out of convenient landfill sites, and landfilling will become more costly as sites are located further from urban centers. It also points out the resource-depleting effects of landfilling recoverable materials.

DRAFT PLAN RECOMMENDATIONS

Addressing a variety of solid waste problems, the plan concentrates on making administrative improvements to the existing system in the near term, and reducing waste quantities in the long term by restricting packaging and developing various source separation and resource recovery programs.

There are three areas of the plan that could eventually affect certain business sectors. The draft plan recommends:

- Federal and State legislative action to improve the competitive position of secondary materials and products containing them. Among the possibilities listed are changes in tax laws, revisions to interstate transportation rate structures, and a quota system for secondary vs. virgin material content of specific products.
- Federal and State action "where appropriate" to regulate container manufacture and packaging, and ban certain disposable products such as one-way beverage bottles.
- efforts to encourage industry to source-separate, recover, and reduce the generation of hazardous wastes. The wording of this recommendation implies that industry efforts in this area will be voluntary, and that the role of ABAG and the State Department of Health will be to provide assistance and incentives.

KEY ISSUES

Improving the competitive position of secondary materials and products containing them. This policy raises two separate issues: first, achieving competitive parity between virgin materials and secondary materials; second, favoring or requiring the use of secondary materials. Both types of action would most likely change the cost and competitive position of specific products, and could spur manufacturers to modify production practices. Acknowledging that the success of source separation and recycling efforts depends upon the desirability of recovered materials to manufacturers and consumers, private industry may find competitive parity between virgin and secondary materials an acceptable objective. However, even those industries not directly affected may be philosophically opposed to regulatory mechanisms intended to increase use of recovered materials.

Change manufacturing standards and regulations. Affected industry has pointed to the costs of changing product and packaging design and production, and the impacts of changing marketing and distribution patterns to comply with new standards. Some have indicated that taxing certain kinds of packaging would be a more acceptable approach to the draft plan's stated goals. ABAG staff has maintained that a direct regulatory approach is necessary to reduce waste quantities, but staff has been unable to justify the recommendation by any analysis of its effectiveness in terms

of any quantitative waste reduction goal. Differing slightly from earlier versions, the recommendation now advocates legislative changes only "as appropriate," but this only subtly changes the substance of the recommendation.

APPENDIX 1

DRAFT AIR QUALITY MAINTENANCE PLAN RECOMMENDATIONS*

*excerpted from ABAG's Draft Environmental Management Plan for the San Francisco Bay Area: Plan Recommendations, December, 1977.

Air Quality Maintenance Plan recommendations

RECOMMENDATIONS	DIRECT BENEFITS (Hydrocarbon emission reductions, tons/day) 1985 2000		IMPLEMENTING AGENCY (or agencies)	SCHEDULE FOR ACTION A - Adoption I - Fully Implemented	TOTAL COST/YEAR OF RECOMMENDED ACTION	FINANCING MECHANISM	LEGAL AUTHORITY
I. Stationary source controls							
GENERAL POLICY: MINIMIZE HYDROCARBON EMISSIONS FROM STATIONARY SOURCES							
Action 1 Use paints and other coatings that are water based and/or have a high solids content.	60	80	Bay Area Air Pollution Control District (BAAPCD)	A - 1978 to 1980 I - 1985	\$7,170,000 ^b	Administrative/ Regulatory - Ad valorem tax revenues - ARB subvention Funds - Federal Clean Air Act funds	BAAPCD Enabling Legislation
Action 2 Use closed systems for storage and transfer of organic liquids.	40	65	BAAPCD	A - 1978 I - 1983	\$17,000,000 ^b	Operating/ Maintenance - Private	BAAPCD Enabling Legislation
Action 3 Use best available control technology (BACT) on new and existing hydrocarbon sources.	227	339	BAAPCD	A - 1980 I - 1985	\$529,000 ^a \$29,331,000 ^b	Capital - Private - California Pollution Control Financing Authority - Federal Small Business Administration Loan Programs	BAAPCD Enabling Legislation
<div><div>PROCESS</div><div>TECHNOLOGY</div></div> <div>Organic storage.....Dual & parallel vapor recovery Tar pots.....Loading door assembly Paint spray booth.....Incinerator or low/no solvent coatings Architectural coating.....Low solvent coatings Dry cleaning.....Closed system with solvent recovery Chemical milling, plating.....Fume scrubbers (packed bed) Cable tar coating.....Incineration Gasoline bulk storage.....Floating roof or fixed roof & vapor recovery Auto service station storage tanks.Closed balanced system with secondary system Auto fill operations.....Secondary vacuum assist system</div>							
Action 4 Continue the review of new & modified industrial and commercial facilities (new source review)	Variable, depending on the stringency of application. Maximum effect of 64 tons/day of hydrocarbon emissions reduced in 1985 and 200 tons/day in 2000.		BAAPCD	Currently being implemented	No direct costs		BAAPCD Enabling Legislation

^a Public agency

^b Private

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<p><u>Air Quality</u></p> <ul style="list-style-type: none"> o See "Direct Benefits" column. <p><u>Water Quality</u></p> <ul style="list-style-type: none"> o No impacts. <p><u>Physical Resources</u></p> <ul style="list-style-type: none"> o Between 18,000 and 25,000 gallons per day of organic solvents could be conserved from proposed organic solvent controls. o Best available control technology would consume construction materials, water, disposal facilities, etc. However, it does comprise many things and has not been identified with regard to Bay Area industrial operations. Consequently, more detailed assessments will require further definition of BACT. <p><u>Energy Resources</u></p> <ul style="list-style-type: none"> o Use of best available control technology for hydrocarbon emissions (including the use of high solids/water base coatings and closed systems for organic liquid storage) should not result in a net energy penalty. Certain technologies such as industrial water based coatings and solvent incineration involve energy penalties, while other technologies such as high solids coatings and improved vapor recovery systems produce energy savings. o Current new source review activities could be perpetuating excessive energy use by old and inefficient plant operations that are presently unable or unwilling to meet stringent NSR requirements in order to modernize. <p><u>Amenities</u></p> <ul style="list-style-type: none"> o The principal impact of the stationary source actions would be their contribution toward the improvement of air quality in the Bay Area. 	<p><u>Institutional</u></p> <ul style="list-style-type: none"> o The governmental structure for implementing these control measures already exists in the Bay Area Air Pollution Control District which actively enforces air pollution control programs in the Bay Area. The measures being proposed for consideration here are simply more stringent extensions of measures already in force for control of industrial and stationary sources of air pollution. <p><u>Financial</u></p> <p>Direct Public Costs of Implementation</p> <ul style="list-style-type: none"> o See public costs (a) in the column headed "Total Cost/Yr. of Recommended Action." <p>Fiscal Effects on Local Governments</p> <ul style="list-style-type: none"> o The BAAPCD operating funds are obtained from local property taxes and State and Federal grants. Exactly how the costs will be apportioned is presently unclear; however, no direct costs to local governments are expected 	<p><u>Production of Goods and Services</u></p> <ul style="list-style-type: none"> o Increased technological dependence by the Bay Area industrial sector to improve regional air quality will require considerable capital investment. In some instances, these added restrictions and costs may adversely affect the competitive position of local industries inter-regionally where the cost of these investments may be passed on to the consumers. o Measures pertaining to coatings will require that process changes occur in order to reduce levels of air pollution. Changed product composition resulting from different processes could result in reduced durability and therefore increased product liability potential for the coatings industry. Phased implementation of this program should help minimize these problems. <p><u>Income and Investment</u></p> <ul style="list-style-type: none"> o See Private Costs (b) in the column headed "Total Cost/Yr of Recommended Action." <p><u>Consumer Expenditures</u></p> <ul style="list-style-type: none"> o While the direct costs of implementing these measures will initially fall upon industry, many, if not all of them will find their way to the consumer and local taxpayer. Since supporting this type of activity is not the type of expense to result in increased productivity or in direct economic return for most of them, it may be considered an inflationary cost. In addition, higher prices for Bay Area products reflecting this cost may become less attractive to non-Bay Area consumers who may look elsewhere for the same product. On the other hand, consumers and local taxpayers may view the costs of implementation as an investment having non-economic but equally valuable return. In either case, implementation of the proposed control measures is likely to result in an increased cost of consumer goods. 	<p><u>Housing Supply</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Physical Mobility</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Health and Safety</u></p> <ul style="list-style-type: none"> o Air quality standards for each of the pollutants are based upon scientifically derived air quality criteria. Air quality criteria are an expression of current information concerning the relationship between various concentrations of pollutants in the air and their adverse effects on man and his environment. The control measures being proposed are designed to meet the standards, i.e., to reduce the concentration of various pollutants in the air. Pollutant concentration reductions from the air will reduce potentially adverse effects from these substances, thereby favorably impacting public health. o With regard to safety, the stationary source control program may eliminate many hazards associated with the use and storage of combustible solvents. <p><u>Sense of Community</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Equity</u></p> <ul style="list-style-type: none"> o A major question of equity involves the competitive position of Bay Area industries that are placed under the restrictions and controls proposed by the stationary source measures. This question can be extended to employment opportunities for the local population. Some employment and business opportunities will be created in local industries producing air pollution control equipment. However, whether or not those opportunities will be available or sufficient to offset increased unemployment resulting from competitive disadvantage (see "Production of Goods and Services") is an issue requiring further exploration. The willingness of the U. S. Environmental Protection Agency and the California Air Resources Board to require similar measures outside of the Bay Area is of obvious concern to the region.

AIR QUALITY MAINTENANCE PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	DIRECT BENEFITS (Hydrocarbon emission reductions, tons/day) 1985 2000	IMPLEMENTING AGENCY (or agencies)	SCHEDULE FOR ACTION A - Adoption I - Fully Implemented	TOTAL COST/YEAR OF RECOMMENDED ACTION	FINANCING MECHANISM	LEGAL AUTHORITY
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II. Mobile source controls

GENERAL POLICY: MINIMIZE HYDROCARBON EMISSIONS FROM MOTOR VEHICLES

Action 5 Implement more stringent vehicle (light duty and heavy duty) exhaust emission controls--approx. 50% reduction below 1977 prescribed levels.	- 62	California Air Resources Board (CARB)	A - 1980 I - 1990	\$3,000 ^a \$24,910,000 ^b	- Private	Mulford-Carrell Air Resources Act
Action 6 Implement inspection/maintenance program for light and heavy duty vehicles.	23 58	CARB and/or Bureau of Automotive Repair	A - 1978 I - 1985	\$1,395,000 ^a \$16,892,000 ^b	- I/M Program revenues - State General Fund	New Legislation Required
Action 7 Require heavy duty gasoline exhaust control devices on existing vehicles.	25 -	CARB	A - 1979 I - 1985	\$8,000 ^a \$1,534,000 ^b	- Private	New Legislation Required

^a Public agency

^b Private

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Air Quality

- o See "Direct Benefits" column.

Water Quality

- o No impact.

Physical Resources

- o No significant impact on physical resources is expected from more stringent exhaust emission controls where such can be achieved by further technological improvement of conventional vehicle engines. However, if new engine designs requiring alternative fuel sources are pursued to achieve this measure, then new materials may be required to manufacture these engines. (For example, electrically-powered vehicles may require special material to construct batteries capable of providing satisfactory power performance.) Of greater significance is the possibility that new engine technologies will utilize less specialized fuels, thereby reducing dependence on gasoline or petroleum per se.

Energy Resources

- o Mobile source emissions controls will produce significant energy savings through improved maintenance of engines and emission control systems, as well as through the eventual development of new engine technologies. The inspection and maintenance program and the retrofit program for heavy duty gasoline trucks could save approximately 10,000,000 gallons of gasoline per year, or about 240,000 barrels of oil per year. New engine technologies could eventually produce as much as 50 percent improvement in vehicle mileage, which in turn would mean annual energy savings of millions of barrels of oil.

Institutional

- o The governmental structure for implementing mobile source control measures already exists in the California Air Resources Board (CARB) which presently has primary responsibility for controlling vehicular emissions in the State. However, specific institutional arrangements for implementing both the inspection/maintenance programs and the heavy duty gasoline retrofit program will be required since none of them are within the current authority of CARB.

The California Air Resources Board and/or the Bureau of Automotive Repair (BAR) would likely assume responsibility for the regulation and operation of I/M programs. Local governmental agencies involvement is not anticipated. The CARB has had experience with implementing retrofit programs in the past. It is assumed that implementation of the proposed heavy duty gasoline retrofit program would be assumed by CARB.

Inspection/maintenance (I/M) programs can be directly administered by the State, or franchised out to private contractors. Data from a pilot I/M program currently being operated in the South Coast Air Basin suggests that the operation of such programs might make disproportionate demands on the administrative resources of the State. Therefore, a private-operated/public-monitored program may be preferable for the Bay Area.

FinancialDirect Public Cost of Implementation

- o See Public Costs (a) in the column headed "Total Cost/Yr of Recommended Action."

Fiscal Effect on Local Government

- o No impact.

Production of Goods and Services

- o A slight increase in the production activity of some industries servicing the automobile manufacturing industry might occur as new tooling required to produce newly designed engines is needed. New engine design may stimulate substantial change in the automotive repair and service industry. The implementation of the inspection/maintenance (I/M) measures would add a new line of service for the California automotive service industry. Some services presently exist for identifying defective emission control equipment on cars. They are not, however, universally applicable to all California registered vehicles. I/M programs for light, medium, and heavy duty vehicles would offer a universally applied service program for identification and repair of vehicles with excessive emission caused by mal-adjusted or defective emission control equipment.

Income and Investment

- o See Private Costs (b) in the column headed "Total Cost/Yr of Recommended Action."

Consumer Expenditures

- o The manufacture of new engine technologies would necessitate an increase in the initial cost of new vehicles. This increase may be offset, however, by savings in operating cost throughout the lifetime of the vehicle. Catalytic converters are estimated to cost about \$350.00 per heavy duty vehicle. (Price includes cost of the device and installation charges.) For a light and medium duty vehicle I/M programs an inspection fee of \$5-6.00 per vehicle would be required. The average cost of repairs for the catalyst equipped vehicle is about \$45.00.

Housing Supply

- o No impact.

Physical Mobility

- o Because of increased cost of private transportation, the mobility of the limited income segment of the Bay Area population may be impaired. This would be particularly true for those located in other than urban centers.

Health and Safety

- o These control measures would substantially reduce carbon monoxide emissions from motor vehicles. Therefore, substantial health-related benefits may accrue to those segments of the population that experience the heaviest exposure to carbon monoxide concentrations while residing, working or shopping in urban centers.

Sense of Community

- o No impact.

Equity

- o The measures will adversely impact some groups in urban areas more severely than others--particularly those with limited income.

Urban Pattern

- o No impact.

RECOMMENDATIONS	DIRECT BENEFITS (Hydrocarbon emission reductions, tons/day) 1985 2000	IMPLEMENTING AGENCY (or agencies)	SCHEDULE FOR ACTION A - Adoption I - Fully Implemented	TOTAL COST/YEAR OF RECOMMENDED ACTION	FINANCING MECHANISM	LEGAL AUTHORITY
III. Transportation controls						
GENERAL POLICY: REDUCE MOTOR VEHICLE EMISSIONS THROUGH TRANSPORTATION ACTIONS TO REDUCE VEHICLE USE						
Action 8 Increase tolls on bridges.	0.2	Not esti- mated sep- arately; included below with emission reductions due to compact develop- ment	Metropolitan Transportation Commission (MTC) and California Toll Bridge Authority	A - 1980 I - 1980	(\$13,000,000 ^b) - Toll revenues	AB 664
Actions 9 & 10 Implement regional parking strategy to discourage private auto use and encourage high-occupancy auto use.			Cities, counties, employers, MTC		- Parking charges	Local Municipal Tax Enabling Legislation
Action 9 - Parking tax	0.3			A - 1980 I - 1981	\$15,000 ^a \$(6,000,000 ^b)	
Action 10 - Preferential parking for carpools and vanpools	0.1			A - 1978 I - 1985	\$886,000 ^a	
Action 11 Provide additional transit service.	0.7		MTC, transit districts (e.g., MUNI, AC, BART)	A - 1978 I - 1985	\$18,540,000 ^a - Federal Mass Transportation Assistance Programs - Fare revenues - Local Trans- portation Development Act Funds - State Highway Trust Fund diversions	- Local Transit District Enabling Legislation - Bay Area Rapid Transit District Enabling Legislation - Interagency Memoranda of Understanding
Action 12 Increase bus and carpool lanes/ramp metering.	0.2		Caltrans, transit districts, cities and counties	A - 1979 I - 1985	\$7,438,000 ^a - Federal Aid Highway Programs - State Highway Programs funds	- AB 69 (State Transportation Planning Enabling Legislation) - AB 363 (Bay Region Trans- portation Planning Legislation) - Caltrans Enabling Legislation - Local Planning and Traffic Control Enabling Legislation
Action 13 Implement an auto control zone in San Francisco central business district to reduce traffic.	0.1	↙	City of San Francisco	A - Previously adopted I - 1980	\$128,000 ^a - City General Funds - Local Trans- portation Development Act Funds	San Francisco Traffic Ordinances

^a Public agency^b Private

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<p><u>Air Quality</u></p> <ul style="list-style-type: none"> o See "Direct Benefits" column. <p><u>Water Quality</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Physical Resources</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Energy</u></p> <ul style="list-style-type: none"> o Gasoline savings from carpooling, the shift to transit, improved traffic flow, and the shift to bicycles. o Minor increase in transit fuel consumption. <p><u>Amenities</u></p> <ul style="list-style-type: none"> o Cleaner air. o Improved pedestrian environment in auto-control zone. 	<p><u>Institutional</u></p> <ul style="list-style-type: none"> o MTC and California Toll Bridge Authority can presently set toll rates. o Additional transit service would be provided by the present operators. o Ride sharing programs would be handled by a non-profit corporation now being established. o Caltrans would implement high-occupancy vehicle (HOV) lanes and carpool lots. o San Francisco would institute the auto control zone as specified in the Transportation Element of the San Francisco General Plan. o Cities and counties would implement bicycle measures. Private employers and businesses would be encouraged to participate. <p><u>Financial</u></p> <ul style="list-style-type: none"> o Certain measures, notable the additional transit services, bus/carpool/lanes, and bicycle systems, are rather costly. There is some funding available, but additional funds will be needed. o Other measures would generate revenue which could be used to finance the incentives mentioned above. 	<p><u>Production of Goods and Services</u></p> <ul style="list-style-type: none"> o New employment in the transit sector. o Possible adverse effect on parking lot operators. <p><u>Consumer Expenditures</u></p> <ul style="list-style-type: none"> o Increase in cost of operating private autos. o Savings to those commuters utilizing carpools, vanpools or transit. 	<p><u>Housing Supply</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Physical Mobility</u></p> <ul style="list-style-type: none"> o Additional transit service would increase mobility of all transit users. o Carpool/vanpool measures would increase travel options for most commuters. o Some restrictions on private auto access in the auto control zone. <p><u>Health and Safety</u></p> <ul style="list-style-type: none"> o Reduction in auto accidents with improved peak period flow. o Improved pedestrian safety in the auto control zone. o Possible increase in number, but not rate, of bicycle accidents with increased usage. <p><u>Sense of Community</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Urban Patterns</u></p> <ul style="list-style-type: none"> o The combination of incentives like additional transit service and disincentives on private auto use will encourage a more compact land use pattern, with employees living closer to transit lines and/or their jobs. <p><u>Equity</u></p> <ul style="list-style-type: none"> o Measures such as additional transit service will particularly benefit low income, handicapped and other persons who depend on this mode of travel. o Pricing disincentives will impact primarily middle income commuters who choose to continue driving their cars.

RECOMMENDATIONS	DIRECT BENEFITS (Hydrocarbon emission reductions, tons/day) 1985 2000	IMPLEMENTING AGENCY (or agencies)	SCHEDULE FOR ACTION A - Adoption I - Fully Implemented	TOTAL COST/YEAR OF RECOMMENDED ACTION	FINANCING MECHANISM	LEGAL AUTHORITY
Action 14 Provide more ride sharing services such as jitneys and vanpools.	1.7 Not estimated separately; included below with emission reductions due to compact development	Caltrans, Employers, MTC	A - Previously adopted I - 1979	\$300,000 ^a	- Federal Mass Transportation Assistance Programs	Federal Energy Legislation
Action 15 Develop more extensive bicycle systems.	2.0	Cities, counties, MTC, Caltrans	A - 1980 I - 1985	\$438,000 ^a ^a Public agency ^b Private	- Federal-Aid Highway Programs - Local Transportation Development Act Funds	- Federal-Aid Highway Legislation - Local Transportation Development Act Legislation

IV. Development and land use management

GENERAL POLICY: ALTER REGIONWIDE DEVELOPMENT PATTERNS TO REDUCE AUTOMOBILE TRAVEL BY MEANS OF LOCAL AND REGIONAL POLICIES ON LAND USE AND URBAN SERVICES

The reductions in emissions are based on a total population in the region of 5.4 million. If the population were at the higher range projected (6.1 million), the emission reductions shown would be higher, but so would the total from which the reductions would be subtracted.	Not 24 estimated	Cities, counties, Local Agency Formation Commissions, special districts, ABAG, BAAPCN, MTC, State Water Resources Control Board, California Department of Transportation, U.S. Department of Transportation, Environmental Protection Agency	A - 1978 I - 2000	Direct administrative and regulatory costs to be estimated when agencies specify actions they will take to carry out recommendation for compact development.	Depends on specific actions	Existing authority contained in California Government Code; Health and Safety Code; State Constitution; relevant Federal legislation.
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NOTE: For purposes of space, the 16 policies recommended in the land use control category have been listed without the 49 separate actions recommended to implement them.

Policy A

Extend new development only to those locations with existing sewer and water service committed in capital improvement programs.

Policy B

Restrict development outside urban service areas in areas of critical environmental concern (environmental resources, hazards, or amenities).

Policy C

Develop unimproved land within urban service areas where urban services exist or are committed in capital improvement programs.

Policy D

Complete, as soon as possible, all needed sewer, water or transportation service improvements within adopted urban service areas.

Policy E

Improve highway, street, road and transit systems consistent with local actions to stage land development.

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Air Quality

- o See "Direct Benefits" Column.

Water Quality

- o Would provide greater preservation of outlying area watersheds, estuarine system and groundwater recharge areas.
- o Would lower per capita consumption rates of municipal and domestic water supplies due to increased development densities (e.g., smaller lawns, etc.).
- o Would provide regionwide reduction in surface runoff pollution due to less impervious surface coverage (streets, highways, rooftops, etc.).
- o Would mean higher localized surface runoff pollution in urban areas due to increased densities.

Physical Resources

- o Less conversion of undeveloped land to urban uses would increase regionwide preservation of critical environmental areas (e.g., prime agricultural lands, ecological habitats such as marshes, steep slopes and flood-prone areas).
- o Would reduce conversion of agricultural land to urban uses.
- o Would reduce damage to flora and fauna due to lower pollutant concentrations.
- o Could reduce conversion of mineral, timber, quarry and geothermal areas to urban uses.
- o Could increase development pressure on land uniquely suited for special development purposes in urban areas (e.g., airports, parks).

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Institutional

- o Would mean significant changes in planning and zoning administration-related activity (e.g., amendment of regional and local general plans, zoning ordinances and subdivision regulation revisions, etc.).
- o Greater coordination would be needed among local agencies whose decisions affect development.
- o Would require increased governmental coordination and technical support to facilitate local action.

Financial

- o Greater use of excess capacity in urban public service facilities (e.g., sewers, schools, etc.) may result in lower user charges, taxes, etc.
- o Would mean a major reduction regionwide in capital construction costs due to limited extension of public services (e.g., highways, sewer collectors, water lines, etc.).
- o More efficient solid waste collection due to higher densities could result in lower collection costs.
- o Would increase tax base for urban areas.
- o Individual property tax assessments may increase, then level off.
- o Sales tax revenue would be increased in urban centers.
- o Increased government administration costs would be expected.
- o Fee and user charges may increase in certain outlying areas.

Production of Goods and Services

- o Would be conducive to increased transit service.
- o Would increase transit-related employment.
- o Would increase job opportunities in urban areas.
- o Would increase commercial activities in urban areas.
- o Would mean less commercial growth in outlying areas.

Income and Investment

- o Would lower regionwide demand for investment due to reduced public capital requirements.
- o Would shift emphasis of public and private financial investment from outlying areas to urban areas for renovation and replacement.
- o Would stimulate housing rehabilitation and maintenance industries.
- o Would stimulate higher density residential production.
- o May affect housing industry profit/cost structure.
- o Residential land prices would increase in the urban centers and close-in areas (e.g., increased site preparation costs for bypassed land) and decline in outlying areas beyond urban services.
- o Industrial land prices not significantly impacted due to large industrial land supply within urban areas.

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Housing Supply

- o Would increase conversions of older urban area single-family structures.
- o Would lower proportion of substandard units regionwide due to rehabilitation and redevelopment efforts.
- o May cause temporary lag in new residential construction in urban areas as builders adjust to zoning and subdivision regulation changes.
- o Would reduce new residential construction in outlying areas within the region.
- o Would increase new construction and rehabilitation activity throughout urban areas, particularly older development areas.

Physical Mobility

- o Could increase transit availability for all trip purposes (e.g., work, school, recreation, shopping, etc.) and for transit-dependent residents.
- o Would increase pedestrian activity as urban services are brought within closer proximity.
- o Would reduce regionwide total vehicle miles traveled.
- o Would mean shorter trips by automobile resulting in increased travel time savings.
- o Local traffic congestion may increase as local streets are used more.
- o Would mean greater inconvenience for private automobile uses (e.g., parking might be more difficult to find).

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Policy F

Increase housing and job opportunities in existing urbanized areas by encouraging public and private rebuilding into compatibly mixed commercial, industrial and residential land uses.

Policy G

Encourage "infill" development of bypassed vacant land within urban service areas.

Policy H

Develop at higher densities within service areas where existing or committed urban service capacities, including transit, can support the higher densities.

Policy I

Limit development of land within urban service areas where soil, slope, or other conditions can support only low-density development.

Policy J

Improve the balance of jobs and housing in jurisdictions throughout the region to reduce the necessity for long distance home-to-job travel.

Policy K

Mix residential/commercial and industrial development in communities throughout the Bay Region.

Policy L

Discourage new large-scale land development projects that are exclusively commercial, industrial or residential, unless such projects clearly demonstrate that they improve the overall balance of jobs and housing in that city, county, or subregion.

Policy M

Fund new wastewater and transportation facilities only after areas serviced have taken actions to carry out actions of this plan.

Policy N

Review development proposals for air quality effects and consistency with compact development recommendations in the plan. (Indirect source review)

Policy O

Adopt financial programs to support local and regional agency actions and private sector development actions consistent with policies in this chapter to reduce home-to-work distance and auto dependency.

Policy P

Adopt a coordinated regionwide program for carrying out actions for attainment and maintenance of air quality standards through development and land use management actions by cities, counties, special districts, ABAG, BAAPCD, MTC, LAFCOs and other appropriate local and regional agencies.

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Energy

- o Would reduce gasoline consumption due to less automobile travel.
- o Would increase consumption of transit-related fuel.
- o Would provide overall reduction in transportation fuel consumption.
- o Would lower per unit household energy consumption.

Amenities

- o Would preserve scenic areas.
- o Would improve visibility regionwide.
- o Would increase numbers of people exposed to noise levels of urban areas.

Consumer Expenditures

- o Could increase housing prices and rents for a short time due to any production lags as builders adjust to zoning and subdivision regulation changes.
- o Would reduce increases in residential waste collection charges.
- o May cause increases in urban area property taxes to support services to new development and because of increased land values.
- o Would reduce increases in residential and commercial energy charges.
- o Could mean more disposable income due to lower transportation costs.
- o May shift housing demand outside Bay Area
- o May affect consumer housing preference.

Health and Safety

- o Would significantly improve public health due to reduced oxidant concentrations regionwide.
- o May cause greater exposure to localized CO pollutant concentrations, depending on the success of technological controls and the amount of increase in use of transit.
- o Could increase pedestrian safety problems on local streets.

Sense of Community

- o Would enhance neighborhood identities due to diversity and density of activity.
- o Adverse social effects may result from higher density development.
- o Would increase time for non-work activity due to shorter commutes.

Equity

- o Could expand transit availability for transit-dependent residents.
- o Would broaden housing opportunities if lower per dwelling unit costs are passed on to residents.
- o Rehabilitation and redevelopment would probably displace poor, aged, minority and handicapped residents.
- o Budgets of those on low- and fixed incomes may be adversely affected due to possible cost of living increases in renewed areas.

APPENDIX 2
EMTF AND ABAG ROSTERS

ASSOCIATION OF BAY AREA GOVERNMENTS

9/30/77

ENVIRONMENTAL MANAGEMENT TASK FORCE

Chairman: Supervisor Dianne Feinstein
 Vice Chairman: Supervisor John Tuteur

I. LOCAL GOVERNMENT REPRESENTATION

<u>Cities in Counties</u>	<u>Official Representative</u>	<u>Alternate Representative</u>
Alameda County Cities	Councilmember Joyce LeClaire	Vacant
Contra Costa County Cities	Councilmember Thomas Corcoran	Vacant
Marin County Cities	Mayor Sherry Levit	Councilwoman Priscilla Gray
Napa County Cities	Councilmember Dorothy Searcy	Mayor Ralph Bolin
San Francisco, City of	Supervisor Gordon Lau	Richard Sklar
San Mateo County Cities	Councilmember William Hardwick	Vacant
Santa Clara County Cities	Councilmember Ruth Koehler	Councilwoman Kathy Nellis
Solano County Cities	Councilmember Rod Boschee	Councilmember Guido E. Colla
Sonoma County Cities	Councilmember Herbert E. Lukas Vice Mayor Nancy Parmelee	Vacant
 <u>Counties</u>		
Alameda County	Supervisor Fred Cooper	Supervisor Valerie Raymond
Contra Costa County	Supervisor Robert I. Schroder	A. A. Dehaesus
Marin County	Supervisor Arnold M. Baptiste	Donald Gutoff
Napa County	Supervisor John Tuteur	Vacant
San Francisco County	Supervisor Dianne Feinstein	Vacant
San Mateo County	Supervisor Fred Lyon	Donald A. Wolfe
Santa Clara County	Supervisor Dan McCorquodale	Supervisor Rod Dridon
Solano County	Supervisor Larry Asera	John S. Blacklock
 <u>City of Oakland, San Francisco, and San Jose</u>		
City of Oakland	Councilmember Fred Maggiora	Vacant
City of San Francisco (Office of Mayor)	Jean Kortum	Mary Burns
City of San Jose	Councilman Larry Pegram	Mayor Janet Gray Hayes

(continued)

(EMTF Roster, continued)

II. REGIONAL AGENCY REPRESENTATION

	<u>Official Representative</u>	<u>Alternate Representative</u>
Bay Area Air Pollution Control District	Supervisor Sam Chapman	Milton Feldstein
Central Coast - Regional Coastal Zone Conservation Commission	Mayor Ilene Weinreb	Vacant
East Bay Municipal Utility District	Helen Burke	Vacant
Metropolitan Transportation Commission	Mayor Richard LaPointe	Louise Giersch
North Central Coast - Regional Coastal Zone Conservation Commission	Councilmember Lenard Grote	Vacant
Regional Water Quality Control Board	Barbara Eastman	Louis P. Martini
San Francisco Bay Conservation and Development Commission	Bessie Watkins	Charles Roberts
Subregional Wastewater Agencies	Wayne Bruce	Dan Murphy

III. SPECIAL INTEREST REPRESENTATION

American Lung Association (Citizen Group for Air Quality)	William Moore	Fran DuMelle
Bay Area Urban League (Urban Minorities)	Percy Steele	Benjamin Major
Contra Costa Building and Construction Trades Council (Housing Construction)	Peter Fearey	John Torrens
Housing Industry	William T. Leonard	Charles Kinney
La Confederacion de la Raza Unida (Non-Urban Minorities)	Lila Gonzalez	Jorge Jimenez
League of Women Voters of the Bay Area (Public Interest)	Stana Hearne	Norma Mancacci
Midpeninsula Citizens for Fair Housing (Fair Housing)	Mary W. Henderson	Kathy Berson
Minority Elected Officials	Councilman Alfredo Garza, Jr. Supervisor John George	Vacant Vacant
San Francisco Bay Chapter Oceanic Society (Citizen Group for Water Quality)	Dr. Michael J. Herz	Thomas Hofweber
San Mateo County Central Labor Council (Labor)	Robert Gilmore	H. C. (Chet) Holcomb
Santa Clara County Farm Bureau (Agriculture)	Carl Voss	Alfred Angelino
Sierra Club (General Environmental)	Bob Rutemoeller	William Wigert
The Bay Area Council, Inc. (Business)	Paul O. Reimer	Angelo J. Siracusa
University of California - School of Social Welfare (Senior Citizens)	Dr. Milton Chernin	Mrs. Milo P. Smith

IV. STATE LEGISLATOR

Santa Clara County	Senator Jerome Smith	Jane Decker
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V. U.S. Congress

7th District	Congressman George Miller	Nick Bevilacqua
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REGIONAL PLANNING COMMITTEE

Chairman: Vice Mayor Susanne B. Wilson (San Jose)
Supervisor Larry Asera (Solano County)
Supervisor Edward J. Bacciocco, Jr. (San Mateo County)
Supervisor Arnold M. Baptise (Marin County)
Mayor Ralph C. Bolin (Napa)
Vice Mayor Donna M. Born (Santa Rosa)
Supervisor Joseph P. Bort (Alameda County)
Councilman Louis M. Cortez (Newark)
Councilman James E. Jackson (Cupertino)
Mayor Joyce A. Jackson (Albany)
Supervisor James P. Kenny (Contra Costa County)
Mayor Pro Tem Margaret W. Kovar (Walnut Creek)
Councilwoman Margaret Kozkowski (San Bruno)
Supervisor Dan McCorquodale (Santa Clara County)
Rai Okamoto, representing Mayor George Moscone (San Francisco)
Councilman Robert B. Stockwell (Novato)
Supervisor John Tuteur (Napa County)
Barbara Eastman, Technical Advisory Member
Jerry Edwards, Technical Advisory Member
Brian Mattson, Technical Advisory Member

(EMTF Roster, continued)

<u>II. REGIONAL AGENCY REPRESENTATION</u>	<u>Official Representative</u>	<u>Alternate Representative</u>
Bay Area Air Pollution Control District	Supervisor Sam Chapman	Milton Feldstein
Central Coast - Regional Coastal Zone Conservation Commission	Mayor Ilene Weinreb	Vacant
East Bay Municipal Utility District	Helen Burke	Vacant
Metropolitan Transportation Commission	Mayor Richard LaPointe	Louise Giersch
North Central Coast - Regional Coastal Zone Conservation Commission	Councilmember Lenard Grote	Vacant
Regional Water Quality Control Board	Barbara Eastman	Louis P. Martini
San Francisco Bay Conservation and Development Commission	Bessie Watkins	Charles Roberts
Subregional Wastewater Agencies	Wayne Bruce	Dan Murphy
<u>III. SPECIAL INTEREST REPRESENTATION</u>		
American Lung Association (Citizen Group for Air Quality)	William Moore	Fran DuMelle
Bay Area Urban League (Urban Minorities)	Percy Steele	Benjamin Major
Contra Costa Building and Construction Trades Council (Housing Construction)	Peter Fearey	John Torrens
Housing Industry	William T. Leonard	Charles Kinney
La Confederacion de la Raza Unida (Non-Urban Minorities)	Lila Gonzalez	Jorge Jimenez
League of Women Voters of the Bay Area (Public Interest)	Stana Hearne	Norma Mencacci
Midpeninsula Citizens for Fair Housing (Fair Housing)	Mary W. Henderson	Kathy Berson
Minority Elected Officials	Councilman Alfredo Garza, Jr. Supervisor John George	Vacant Vacant
San Francisco Bay Chapter Oceanic Society (Citizen Group for Water Quality)	Dr. Michael J. Herz	Thomas Hofweber
San Mateo County Central Labor Council (Labor)	Robert Gilmore	H. C. (Chet) Holcomb
Santa Clara County Farm Bureau (Agriculture)	Carl Voss	Alfred Angelino
Sierra Club (General Environmental)	Bob Rutemoeller	William Wigert
The Bay Area Council, Inc. (Business)	Paul O. Relmer	Angelo J. Siracusa
University of California - School of Social Welfare (Senior Citizens)	Dr. Milton Chernin	Mrs. Milo P. Smith
<u>IV. STATE LEGISLATOR</u>		
Santa Clara County	Senator Jerome Smith	Jane Decker
<u>V. U.S. Congress</u>		
7th District	Congressman George Miller	Nick Bevilacqua

REGIONAL PLANNING COMMITTEE

Chairman: Vice Mayor Susanne B. Wilson (San Jose)
Supervisor Larry Asera (Solano County)
Supervisor Edward J. Bacciocco, Jr. (San Mateo County)
Supervisor Arnold M. Baptise (Marin County)
Mayor Ralph C. Bolin (Napa)
Vice Mayor Donna M. Born (Santa Rosa)
Supervisor Joseph P. Bort (Alameda County)
Councilman Louis M. Cortez (Newark)
Councilman James E. Jackson (Cupertino)
Mayor Joyce A. Jackson (Albany)
Supervisor James P. Kenny (Contra Costa County)
Mayor Pro Tem Margaret W. Kovar (Walnut Creek)
Councilwoman Margaret Kozkowski (San Bruno)
Supervisor Dan McCorquodale (Santa Clara County)
Rai Okamoto, representing Mayor George Moscone (San Francisco)
Councilman Robert B. Stockwell (Novato)
Supervisor John Tuteur (Napa County)
Barbara Eastman, Technical Advisory Member
Jerry Edwards, Technical Advisory Member
Brian Mattson, Technical Advisory Member

ASSOCIATION OF BAY AREA GOVERNMENTS

PRESIDENT: Councilman Lenard E. Grote, City of Pleasant Hill
 VICE PRESIDENT: Supervisor Rod Diridon, Santa Clara County
 IMMEDIATE PAST PRESIDENT: Supervisor Warren N. Boggess, Contra Costa County
 EXECUTIVE DIRECTOR: Revan A. F. Tranter

EXECUTIVE BOARD

<u>COUNTY OF:</u>	<u>OFFICIAL REPRESENTATIVE</u>	<u>ALTERNATIVE REPRESENTATIVE</u>
Alameda	**Supervisor Valerie Raymond **Supervisor Joseph P. Bort	Supervisor John George Supervisor Charles Santana
Contra Costa	*Supervisor James P. Kenny *Supervisor Robert I. Schroder	Supervisor Nancy C. Fahden Supervisor Eric H. Hasseltine
Marin	**Supervisor Arnold M. Baptiste	Supervisor Barbara Boxer
Napa	**Supervisor John Tuteur	Supervisor Harold Moskowitz
San Francisco	**Supervisor Quentin L. Kopp **Supervisor Dianne Feinstein	Supervisor Terry A. Francois To be appointed
San Mateo	*Supervisor Fred Lyon *Supervisor James V. Fitzgerald	Supervisor Edward J. Bacciochio, Jr. Supervisor John M. Ward
Santa Clara	**Supervisor Rod Diridon **Supervisor Dan McCorquodale	Supervisor Sig Sanchez Supervisor Dominic L. Cortese
Solano	*Supervisor Thomas M. Hannigan	Supervisor Larry L. Asera

CITIES IN THE COUNTY OF:

Alameda	*Mayor James E. Balentina (Newark) *Vice Mayor Susan Hone (Berkeley)	Mayor Helen M. Tirsell (Livermore) To be appointed
Contra Costa	**Mayor Richard H. Bartke (El Cerrito) **Mayor Ned Robinson (Lafayette)	Councilman Thomas J. Corcoran (Richmond) Vice Mayor Charles D. Evans (Clayton)
Marin	*Mayor Sherry C. Levit (Belvedere)	Councilman Robert B. Stockwell (Novato)
Napa	*Mayor Ralph C. Bolin (Napa)	Mayor Lowell Smith (St. Helena)
San Francisco	*Mayor George R. Moscone *Mr. Roger Boas **Supervisor Gordon J. Lau	Mr. William Evers Mr. Thomas G. Miller Supervisor Robert E. Gonzales
San Mateo	**Councilwoman Jane Baker (San Mateo) **Councilman Nat Landes (Woodside)	Vice Mayor Anthony Governale (San Bruno) Councilman R. David Martin (Burlingame)
Santa Clara	*Councilman James E. Jackson (Cupertino) *Councilman Mark B. DiDuca (Los Gatos)	Councilmember Judith Moss (Mtn. View) Mayor Pro Tem Lucile T. Hillestad (Los Altos Hills)
Solano	**Councilman William J. Carroll (Vacaville)	Mayor Pro Tem Gary Falati (Fairfield)
Sonoma	**Councilman Jack W. Cavanagh, Jr. (Petaluma)	Vice Mayor Nancy Parmelee (Sonoma)
City of Oakland	*Councilman Felix Chialvo *Councilman Fred Maggiora *Councilman Carter Gilmore	Councilman Raymond L. Eng Vice Mayor John Sutter Councilman George J. Vukasin
City of San Jose	*Councilman Alfredo Garza, Jr. *Councilman David Runyon *Vice Mayor Susanne B. Wilson	Councilman James E. Self Mayor Janet Gray Hayes Councilman Larry Pegram

*Term of Office: July 1, 1976 - June 30, 1978

**Term of Office: July 1, 1977 - June 30, 1979

Advisory Member: Barbara Eastman

Alt. Advisory Member:

San Francisco Regional Water Quality Control Board

Mr. Louis P. Martini

San Francisco Regional Water Quality Control Board

ASSOCIATION OF BAY AREA GOVERNMENTS
MEMBERS AND REPRESENTATIVES TO THE ASSOCIATION

DECEMBER 9, 1977

PRESIDENT: Councilman Lenard E. Grote, City of Pleasant Hill
VICE PRESIDENT: Supervisor Rod Diridon, Santa Clara County
IMMEDIATE PAST PRESIDENT: Supervisor Warren N. Boggess, Contra Costa County
SECRETARY-TREASURER: Revan A. F. Tranter, Executive Director

<u>COUNTIES</u>	<u>OFFICIAL REPRESENTATIVE</u>	<u>ALTERNATE</u>
1. Alameda	Supervisor Joseph P. Bort	Supervisor Valerie Raymond
2. Contra Costa	Supervisor James P. Kenny	Supervisor Robert I. Schroder
3. Marin	Supervisor Arnold M. Baptiste	Supervisor Barbara Boxer
4. Napa	Supervisor John Tuteur	Supervisor Harold Moskowitz
5. San Francisco	To be appointed	To be appointed
6. San Mateo	Supervisor Edward J. Bacciocco, Jr.	Supervisor James V. Fitzgerald
7. Santa Clara	Supervisor Rod Diridon	Supervisor Dan McCorquodale
8. Solano	Supervisor Thomas M. Hannigan	Supervisor Larry L. Asera

<u>CITIES</u>	<u>OFFICIAL REPRESENTATIVE</u>	<u>ALTERNATE</u>
<u>Alameda County</u>		
1. Alameda	Mayor Carmelo J. Corica	Councilman Richard H. Sherratt
2. Albany	To be appointed	To be appointed
3. Berkeley	Mayor Warren Widener	Vice Mayor Susan Hone
4. Emeryville	Mayor Wallace E. Fox	Vice Mayor Wylie H. Eaton
5. Fremont	Mayor Gene Rhodes	Vice Mayor Leon Mezzetti
6. Hayward	Mayor Ilene Weinreb	Councilman Nicholas J. Randall
7. Livermore	Mayor Helen M. Tirsell	Councilman John F. Staley
8. Newark	Councilwoman Shirley D. Sisk	Councilwoman Marilyn M. Miller
9. Oakland	Councilman Felix Chialvo	To be appointed
10. Piedmont	Vice Mayor Anthony Loughran	Councilman Frank S. Anderson
11. Pleasanton	Councilman William J. Herlihy	Councilman Frank C. Brandes, Jr.
12. San Leandro	Mayor Jack D. Maltester	Councilman Joseph J. Coppa
13. Union City	Mayor Tom Kitayama	Councilman Richard N. Oliver

CITIESOFFICIAL REPRESENTATIVEALTERNATEContra Costa County

14. Antioch	Mayor Verne Roberts	Mayor Pro Tem James A. Davi
15. Brentwood	Councilwoman Barbara J. Guise	Mayor Joseph K. Cunningham
16. Clayton	Vice Mayor Charles D. Evans	Councilman Robert W. Hoyer
17. Concord	Councilman William H. Dixon	Mayor Richard T. LaPointe
18. El Cerrito	Mayor Pro Tem Richard Spellman	Councilman Gary E. MacLaren
19. Hercules	Vice Mayor Ronald J. Ardisson	Councilman Fred Wachowicz
20. Lafayette	Mayor Ned Robinson	Councilwoman Barbara Langlois
21. Martinez	Councilman John Sparacino	Mayor James T. Krause
22. Moraga	Mayor Susan H. McMulty	Councilman Barry R. Gross
23. Pinole	Councilman James M. Braden	Councilman Stuart B. Gould
24. Pittsburg	Councilman George Lowy	Mayor Frank Quesada
25. Pleasant Hill	Councilman Lenard E. Grote	Mayor James G. Maguire
26. Richmond	Councilman Robert J. Campbell	Councilman Fritzic V. Allen
27. San Pablo	Mayor Kathryn L. Carmignani	Councilwoman Marie H. Daniels
28. Walnut Creek	Mayor Pro Tem Margaret Kovar	Councilman Sanford Skaggs

Marin County

29. Belvedere	Mayor Sherry C. Levit	Councilman Charles E. Auerbach
30. Corte Madera	Councilwoman Jana Haehl	Vice Mayor Joel Shawn
31. Fairfax	Mayor Jean Mahoney	Councilman Randall Garrison
32. Larkspur	To be appointed	Councilman H. William Howard
33. Mill Valley	Vice Mayor Flora Praszker	To be appointed
34. Novato	Mayor Pro Tem Gail Wilhelm	Mayor David Milano
35. Ross	Mayor Frederick S. Allen	Councilwoman Julie Osterloh
36. San Anselmo	Mayor Pieter Toal	Councilman John H. Colteaux
37. San Rafael	Councilman Lawrence E. Mulryan	Vice Mayor Fred E. Jensen
38. Sausalito	Councilman Rene W. De Bruyn	To be appointed
39. Tiburon	Mayor E. Bruce Ross	Councilman George L. Ellman

Napa County

40. Calistoga	Councilman Warren Butler	To be appointed
41. Napa	Mayor Ralph C. Bolin	Councilwoman Dorothy A. Searcy
42. St. Helena	Mayor Lowell Smith	Vice Mayor Robert Mahorney

San Francisco County

43. San Francisco	Mayor George R. Moscone	To be appointed
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San Mateo County

44. Belmont	Councilwoman Pamela S. Ketcham	Vice Mayor Walter Wortghe, Jr.
45. Brisbane	Mayor Paul F. Goercke	Mayor Pro Tem Jeannine D. Hodge
46. Burlingame	Councilman R. David Martin	Councilman Irving S. Amstrup
47. Colma	Councilman Fred Garbini	Councilman Raymond D. Ottoboni
48. Daly City	Councilman Victor G. Kyriakis	Mayor Albert M. Teglia
49. Foster City	Councilman Gilbert S. Zimmerman	Councilman Clifton A. Chavez
50. Half Moon Bay	Mayor Joseph Marmont	Vice Mayor Lawrence E. Alleman
51. Menlo Park	Mayor Pro Tem Jennifer Bigelow	Councilman James L. Bloch
52. Millbrae	Councilwoman Mary E. Griffin	Councilman Frank T. Cannizzaro
53. Pacifica	Councilwoman Janice Fulford	Mayor Sidney Loran
54. Portola Valley	Councilman Robert V. Brown	Councilman John A. Wilson
55. Redwood City	Councilman Robert E. Norris	Vice Mayor Michael J. Barrett
56. San Bruno	Councilman Richard Griffith	Mayor Gary Mondfrans
57. San Carlos	Councilman William M. Steele	Councilman Gayton De Rosa
58. San Mateo	Councilwoman Jane Baker	Councilman John F. Condon
59. So. San Francisco	Vice Mayor William A. Borba	Councilman Richard A. Battaglia
60. Woodside	Vice Mayor Suzanne S. Weeks	Councilwoman Olive Mayer



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CITIESOFFICIAL REPRESENTATIVEALTERNATESanta Clara County

- 61. Campbell
- 62. Cupertino
- 63. Gilroy
- 64. Los Altos
- 65. Los Altos Hills
- 66. Los Gatos
- 67. Milpitas
- 68. Morgan Hill
- 69. Mountain View
- 70. Palo Alto
- 71. San Jose
- 72. Santa Clara
- 73. Saratoga
- 74. Sunnyvale

Mayor William R. Podgorsek
 Councilman James E. Jackson
 Councilman Brian D. Cunningham
 Councilwoman Audrey Fisher
 Mayor Pro Tem Lucile T. Hillestad
 Vice Mayor Mardi Gualtieri
 Councilman Jack L. Wach
 Councilman Daniel C. Bertelli
 Councilmember Judith Moss
 Vice Mayor Frances H. Brenner
 Mayor Janet Gray Hayes
 Councilman William P. Kiely, Jr.
 Councilwoman Margaret (Peggy) Corr
 Councilwoman Dianne McKenna

Councilman Ralph Doetsch, Sr.
 Mayor Donald A. Frolich
 Councilman David V. Stout
 Councilwoman Ruth H. Koehler
 Mayor Keith M. Brown
 Councilman John B. Lochner
 Councilman Peter A. McHugh
 Councilman John C. Biechman
 Councilmember Angelo Frosolone
 Councilmember Gary P. Fazzino
 Vice Mayor Susanne B. Wilson
 Councilwoman Auralee Street
 Councilman Norman Matteoni
 Councilman Lawrence E. Stone

Solano County

- 75. Dixon
- 76. Fairfield
- 77. Suisun City
- 78. Vacaville
- 79. Vallejo

Councilman James M. Stephens
 Councilman Loyal Hanson
 Councilman Guido E. Colla
 Councilman William J. Carroll
 Mayor Florence E. Douglas

Mayor Alice E. Ary
 Mayor Gary Falati
 Mayor Manuel Baracosa
 Councilman N. Berton Hassing
 Councilman Anthony J. Intintoli, Jr.

Sonoma County

- 80. Cloverdale
- 81. Cotati
- 82. Healdsburg
- 83. Petaluma
- 84. Rohnert Park
- 85. Santa Rosa
- 86. Sebastopol
- 87. Sonoma

Councilman Ralo D. Bandiera
 Mayor Allen Stansbury
 Councilman William R. "Bill" Lucius
 Mayor Helen Putnam
 Councilman Warren K. Hopkins
 Councilman Gregory Jones, Jr.
 Councilman Herbert E. Lukas
 Vice Mayor Nancy Parmelee

Councilwoman Marie O. Vandagriff
 To be appointed
 Mayor Jerry W. Eddinger
 To be appointed
 Councilman Arthur N. Roberts
 Councilman Murray A. Zatman
 Vice Mayor Thomas F. Miller
 Councilman Kenneth McTaggart

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